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Development of Transhumanism

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Abstract: The development of transhumanism will be discussed and followed through the occurrences that lead up to the transhumanism shift. From cyborgs to singularity, the human body will change from a normal and completely biological being into a mechanical computer human, while computers will change, mimicking humans, to become human computers.

In order to discuss the development of transhumanism, a definition of the concept of transhumanism itself is necessary. It is a new, emergent philosophy, so a concrete definition has not been entirely established. One definition is defined as the philosophy that we can enhance our current state to a point of exceeding necessity. This can be seen as slightly flawed because identifying what is or is not a necessity can become a grey area of confusion. Imagine in the near future; neural implants have been developed to become efficient, safe, and inexpensive. The particular neural implant in question would give the ability to recall lost memories and formulate thoughts at a massively multiplied rate. An argument that shows this will be a necessity is that in this world where computer processors are becoming more and more powerful, the human brain is becoming outdated. If we did not take advantage of this technology to its fullest, then we have a chance of being left behind in the intellectual dust. We would not have the neural processing power to defend our jobs from being replaced by computers. The other side of the argument is that it would not be a necessity. As human beings at our core, we only need to eat, drink, and sleep in order to stay alive. People that do not have the neural implants would still be able to survive, and they would be completely well and functional people. They may not have the same intellectual capacity, but when has intelligence been a necessity to life? Transhumanism is not the philosophy of improving our state of being

until we exceed necessity. It is the philosophy that humans will realize that with technology they can improve themselves to the point of transcending humanity. Dr. Robin Hanson defined modern transhumanism as "the idea that new technologies are likely to change the world so much in the next century or two that our descendants will in many ways no longer be 'human'."

As of today, we have not accomplished transhumanism, but it is inevitable that we achieve this stage in the near future. The term cyborg is looked down upon by many people and I believe that this is a result from the portrayal that the 'borgs' from Star Trek have created. I asked several of my friends what they believed was a cyborg, and they gave me a description that paralleled the description of a 'borg.' Truthfully, the majority of humans are already cyborgs. The definition of a cyborg, like transhumanism, is not entirely concrete. For my purposes, the definition of a cyborg is an organism that has both organic and synthetic parts that are used in order for survival in extraordinary conditions. Some people have gone to the extreme of saying that the use of clothes has turned us into cyborgs, because it allows us to live in environments that we normally would not be able to live within. Along these same lines, glasses or contacts would make a human a cyborg. This should not be within the classification of a cyborg. The synthetic part or parts would have to be placed within the body, or replace a body part. A pacemaker, synthetic limbs, and synthetic organs would be examples of what would create a cyborg. Becoming a cyborg is a precursor to transhumanism. The difference is that becoming a cyborg would be a requirement in order to survive within the environment, while transhumanism would be increasing or adding abilities for personal or novelty reasons.

Transhumanism will mostly develop from the medical field through the advancement of current prosthetic products. Once artificial limbs are perfected to the point that they are substantially better than the limbs we are born with, then the transhumanism shift will begin to take place. It will most likely begin with necessity; where a person with Alzheimer's disease is given a neural implant that allows him to formulate memories once again. However, eventually the medical profession will start to allow the purchase of these mechanical enhancements even if there is not a faulty body part involved. This will lead to the spawn of a generation where it is seen as morally justified to improve your body with mechanical parts.

The main hurdle that must be cleared before transhumanism can be reached is morality. The main question that will be addressed will be: Is it morally acceptable to replace biological parts that are already functional and well in order to enhance the current state of living? It is a difficult question to answer, because everybody will not believe the transhumanism philosophy is correct; there will still be opposition. Unfortunately the major resistance to this philosophy will derive from the religious factions. Within religion, one of the doctrines that is taught comes from the philosophy that we were put here on an earth that contains everything we ever needed, and we do not need to strive to improve our standard of living because a god will take care of our standard for us. I personally do not want to argue the philosophies of religion, so I will further avoid this subject. As our technology progresses, I believe that the concepts will not seem as foreign and the fear of change will eventually dilute. There is a great possibility that transhumanism will become a reality within the next century.

Some possibilities of accomplishments that could potentially be achieved through transhumanism need to be identified. One adaptation that was mentioned briefly before would be neural implants. These can have more than one purpose, and a person can potentially have more than one implant. The most publicized and relevant implant that is being created is a brain implant that will mimic neurons within the human brain. This will allow the implant to bridge information from one neuron to the next by transferring the information across scar tissue or dead cells. The implant has been created, and the software for the microchip has been created also, but the problem they are trying to solve is having the implant stay in the brain, connected to the neurons without losing the connections. The brain shifts as a human ages, and scar tissues can develop which would cause the chip to disconnect. After this problem is solved, the incorporation of brain implants will occur soon. This implant will allow people to reformulate memories and increase the speed in which they can recall memories. This same implant will make it easier to store information within the brain, so memorization and learning will increase in speed also. With the increase in the speed of data flow within the brain, people with this implant will have better mental abilities than the average unmodified human. The necessity of these implants will start to form as they become required in order to perform in certain professions. Another adaptation, (I also mentioned this earlier in brevity), is robotic limbs. As of now, robotic limbs are used purely for patients that require limb replacement. The synthetic limbs are not as useful as the limbs that humans are naturally born with, but that does not mean that they will remain that way forever. There will come a point in time where the artificial limbs are better than the limbs with which we were born. At some point the unmodified people will begin to notice that the people who had

to have limbs replaced have become more mobile and functional than the unmodified people. Some people will begin to demand that their limbs get replaced; even though the limbs with which they started were perfectly functional. Another adaptation will be nanobots. We will be able to have nanobots injected into our bodies and they will flow through our blood clearing out the cholesterol buildups leading to healthier arteries. Nanobots may have other functions like removing tumors, or aiding in blood clotting for large wounds.

Humans have always had a characteristic of depending on their inventions. Humans have created many wonderful things like a time system, electricity, the alphabet, mathematics, and many others. As we have created each of these things we have come to depend on them with our lives. Before pocket watches were invented, humans were not able to keep such a strict time schedule of having to be at a specific place during a specific time. With the aid of pocket watches, we have created a very efficient life style where not a minute is wasted without our knowledge of that minute passing by. We rely on pocket watches to get us to events without being a minute late. A more recent invention that we tend to rely on is cellular phones. I do not even know my dorm phone number because I use a cellular phone as my only phone number. I know several people who have had their phone lines disconnected from their house because they only use their cellular phones. As we develop the adaptations that were mentioned before, we will come to rely on them. And with this dependence on these new technologies, we will keep creating technologies on which we rely. Our bodies will begin to transform into a posthuman form that will make us drastically different from our current state. We are slowly working our way to becoming more and more like computers.

We are constantly upgrading computers at an exponential rate, and in the next 50 years we are going to see a phenomenal jump in computer growth. Computers processors will pass up the processing power of the human brain. With this new technology we will be able to more easily create robots that are more and more realistic in a human characterized way. If we create the perfect robot that can pass the Turing test no matter how many times you test it, then it will not be easily identifiable from a human being. If this robot becomes self-conscious, then the only way for humans to tell the difference between themselves and the robot would be in appearance. However, humans are constantly modifying the looks of robots to give a more 'human' appearance. If we can make a self-conscious robot, then we should easily be able to create a robot that resembles a human in looks also. With this in mind, during the whole development of this magnificent robot species, we will have modified our bodies greatly with the benefits of this new technology. In order to compete with the robots that we have created, we will have to modify our brains so we will be able to retain our jobs and keep the respect we wish to have from our new robot friends. We will also have to improve our bodies so if there happens to be a robot that commits a criminal act, we will be able to chase it down without being completely outrun from the use of the far superior robotic legs that the robot will have. As we adapt, we will evolve to increasingly resemble computers, and the computers will evolve and adapt to become more and more like humans. This idea is called 'singularity'.

Singularity is another new philosophy that is purely the unity of our human knowledge with the faster and larger knowledge that comes from technology. It will be the beginning of a new way for humans to evolve. We will be evolving through this new

technological binding that will have taken place. The human race will change to an extent that we will not be identifiably human from the current definition that our race has been given. The abilities that we will achieve will not really be human abilities; they will be technological abilities that are granted through the merger of humans and technology. We will be able to quickly download information that we wish to learn, and we will be able to upload and share intelligence between the upgraded brains. We will no longer have a limited learning capacity, because we will have storage devices integrated into our bodies. It will be easier for people to pursue the careers that they are truly interested in, instead of pursuing careers in which they are only skillful. As the time passed, the posthuman's intelligence will be increased due to technological developments. We will not have to rely on biological evolution to make us into a better species; we will be able to form our evolution and our age through singularity.

We have been modifying our special evolution ever since we were able to create survival technology. There are many people today that would have been legally blind if it hadn't been for eyeglasses. Without the use of clothes we would have had to live in a warmer environment and everyone would be living in or around the equatorial area of the Earth. Through the nifty inventions that our society has created over our history of technology, we have been able to reduce the deaths from environmental conditions drastically. In order for our biological evolution to work productively, we would have to stop using the inventions in which we have come to rely. A person that is born with poor eyesight would have a harder time surviving in a world without eye corrections, and some people would not be able to survive or function at all. If all the people with bad eyesight died at early ages, then there would be a lower chance of them reproducing, so

there would be a lower chance of having children born with bad eyesight. This is, of course, assuming that eyesight is hereditary to an extent. As can be seen from the survival technologies that we have created, we are restricting biological evolution from working to its fullest extent. Singularity will revamp our evolution causing technological evolution that will be exponentially faster than our previous biological evolution.

Through this new technological evolution we will allow ourselves to become virtually immortal. We will not be able to carry on with our bodies in their current condition, so we will rebuild our bodies for the most efficient use of age preservation. Over time, however, we will run into a minor problem. It may not even be looked at as a problem, but as a transition instead. This transition will occur when our biological bodies age to the point that we are not able to sustain the abilities that we wish to have. The biological bodies cannot last forever, so eventually the bodies will die. This will not cause too much of a difficulty though, because by the time the death takes place, our complete consciousness will have already been transferred into an electric storage device that will house everything from emotional responses to philosophical thinking. In a way it would be a quick transfer in which we just remove the unnecessary biological body and replace what was removed with a mechanical body. It would be a painless and quick transfer where the person will go to sleep and wake up with the procedure finished. The early versions of this may not go exactly as I have predicted, but I assume it will be close to this. Through singularity we will achieve the immortality that generations of human beings have sought relentlessly to find.

The development of transhumanism may seem very far fetched and something that may not occur in our lifetimes, but in reality the beginnings of transhumanism will

most definitely occur within our lifetimes. I imagine that the process will begin within the next 20 years. How will the world react? Will there be complications within different political groups? Will traditionalists revolt against the entire process and cause funding to be stripped from the research groups? These are questions that I cannot answer. The prediction of 20 years solely depends on cooperation of society. If a society looks down upon the process, transhumanism can be delayed, but not prevented. Transhumanism is the next major step in our technological future; it is sure to eventually occur.

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